# **INSTRUCTION MANUAL**

Automatic Digital Blood Pressure Monitor

# Model 7659

Sunbeam-Oster Household Products Before operating this unit please read these instructions completely. P.N.99935

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# DO'S AND DON'TS FOR ACCURATE BLOOD PRESSURE READINGS

Do Read instructions carefully before using Monitor

- 2. Do Rest arm on a flat surface so that upper arm is at heart level when taking measurements.
- 3. Do Remain calm, quiet and still when measurements are being taken.
- 4. DO make sure that the cuff is in the proper position according to your instruction manual.
- 5. DO Insure that the exhaust velocity is 2-5 mmHg per second at the systolic point each time a measurement is taken.
- 6. DO Wait at least 10 minutes between taking measurements.
- 7. DO Pump unit pressure 30 to 60 mmHg above normal systolic before beginning measurement.
- 8. DO Consult your physician before adjusting your medication based on readings from this Monitor.
- 9. DO Use fresh alkaline batteries.
- IO. DO Use a dry, soft cloth to clean the instrument.

**DO** NOT move arms or hands when measurement is being taken.

- 2. DO NOT talk or chew when measurement is being taken.
- 3. DO NOT take a series of measurements without waiting at least 10 minutes between measurements.
- 4. DO NOT adjust medication based on readings from this Monitor.
- 5. DO NOT make any adjustments to unit, there are no user serviceable parts. *Call I-800-597-5978 for further instructions.*
- 6. DO NOT smoke during or at least 30 minutes prior to taking blood pressure measurements.
- DO NOT drop or otherwise mechanically shock the Monitor. This is a delicate precision device.
- 8. DO NOT use thinner, alcohol, benzene or wet cloth to clean unit.
- 9. DO NOT subject to extremes in temperature, humidity, direct sunlight or dust.
- 10 **DO NOT** fold the Arm Cuff or Rubber Cuff Hose tightly during storage, as such treatment may shorten the life of the components.

Manufactured to meet specifications set by the Association for the Advancement of Medical Instrumentation (AAMI)

### MORE ABOUT BLOOD PRESSURE MEASUREMENTS

#### What is Blood Pressure?

Blood pressure is a measurement of the force of blood flowing against the walls of the arteries. Arterial blood pressure is constantly changing during the course of the cardiac cycle. The highest pressure in the cycle is called the SYSTOLIC BLOOD PRESSURE; the lowest is the DIASTOLIC BLOOD PRESSURE. Both pressure readings, the SYS-TOLIC and DIASTOLIC, are necessary to enable a physician to evaluate the status of a patient's blood pressure. Many factors such as physical activity, anxiety, or the time of day, can influence your blood pressure. Blood pressure is typically low in the morning and increases from afternoon to evening. It is lower in the summer and higher in the winter.

### Why Is It a Good Thing to Measure Blood Pressure at Home?

Having one's blood pressure measured by a doctor in a hospital or a clinic, and group health checks, tend to stimulate nervousness in the subject and may even create high blood pressure. Also blood pressure varies in accordance with a variety of conditions,, and so judgement is not possible on the basis of a single measurement. (See Fig. 2)

The blood pressure measured first thing in the morning after getting up, before taking any food, and with the subject still, is known as the fundamental blood pressure. In practice it is rather difficult to record the fundamental blood pressure, but to come as near as possible to measuring. the blood pressure in **an** environment that is close to this, is why it is useful to take the measurement at home.

## GLOSSARY

Systolic: The highest point of blood pressure; level of blood pressure produced as your heart beats.

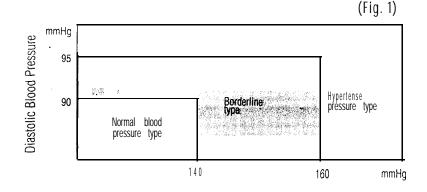
Diastolic: The lowest point of blood pressure; level of blood pressure produced as your heart rests between beats.

Millimeters of Mercury (mmHg): Blood pressure is measured in terms of the height of mercury in a column. Measurements are written one over the other. For example, a systolic pressure of 120 mmHg and diastolic pressure of 80 mmHg is expressed as "120 over 80."

IMPORTANT: Only a physician is qualified to interpret your blood pressure measurements, and no device can replace regular medical examinations by your physician. It is recommended that your physician raview your procedure for using this blood pressure monitor. Your physician should verify blood pressure measurements before making adjustments to medication.

# W.H.O. BLOOD PRESSURE CLASSIFICATIONS

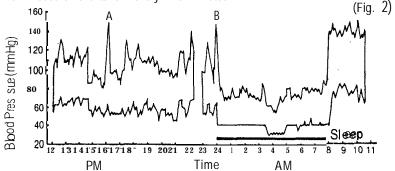
Standards for assessment of high or low blood pressure; without regard to age, have been established by the World Health Organization (WHO), as shown in this chart.



Reference Material: Investigation into Adult Diseases Report by the Ministry of Health and Social Security, 1971.

# **VARIATIONS IN BLOOD PRESSURE**

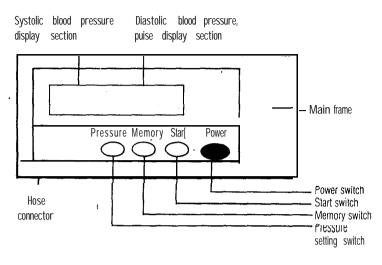
Individual blood pressures vary greatly both on a daily and a seasonal basis. These variations are even more pronounced in hypertense patients. Normally the blood pressure rises while at work and is at its lowest during the sleeping period. The graph below illustrates the variations in blood pressure over a whole day with measurement taken every five minutes.

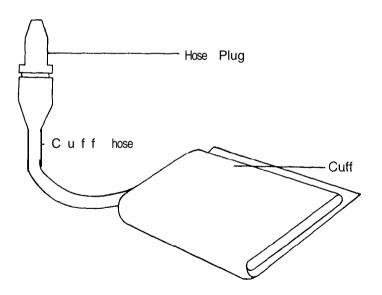


Shown is data tor measurements taken every 5 minutes. The thick line represents sleep. The rise in blood pressure at 4 PM (A in the graph) and 12 PM (B in the graph) correspond to an attack of pain and sexual intercourse. (Beven, Honour & Stott: Clin. Sci. 36:329, 1969.)

# PARTS IDENTIFICATION

### DIAGRAM A





# DESCRIPTION OF DISPLAY MARKS-

2.

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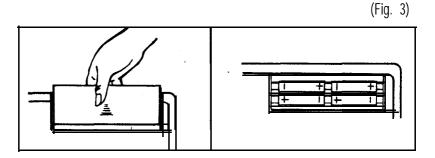
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Display mark	Condition/Cause	Corrective action	
Measurement in progress	Mark <b>appears</b> in the <b>mea</b> - surement condition and flashes when pulse is detected.	Measurement in progress - remain quiet.	
Exhaust	Mark flashes when power is applied and there is air remaining in the cuff.	Automatic exhaust is per- formed.	
A Insufficient pressure	Measurement has begun but the pressure was insufficient.	Raise the cuff pressure 30-40 mmHg more and measure once again.	
Replace batteries	Appears when the battery voltage is excessively tow.	Replace all four batteries with new ones.	
ERR Measurement error	Appears when the blood pressure could not be obtained accurately.	Exhaust the air from the cuff, and re-apply the cuff	
PLILERR Pulse error	Appears when the pulse rate could not be obtained accurately.	properly and re-measure. (Wait 10 minutes before re-measure)	

# PREPARATION FOR MEASUREMENTS

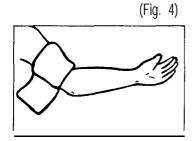
### 1: Battery Installation

Remove the battery cover and insert oatteries into the battery compartment as shown, taking extreme tare that the polarities + and - are observed. (Fig. 3)

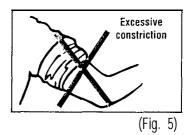


2. Attaching the Arm Cuff

Wind the arm cuff around the left Upper arm tightly (for best results) so that the bottom edge of the cuff is positioned one inch above the elbow joint.



\*Do not roll up a shirt or jacket. It may cause constriction of the Upper arm and proper measurement results Will not be obtained. (Fig. 5)



## 3. Measuring Posture

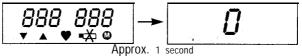
Remain in a seated or reclining position. Do not move your arm while measuring.

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## **HOW TO MEASURE**

- 1. Turn Power ON
- When power is turned and all display marks appear for approximately 1 second.
- When the "o" is displayed the unit is ready for measurement If the "♥" mark appears, release air in the arm cuff by squeezing it or removing the hose plug.



- 2. Attach the arm cuff to the left arm for best results.
- 3. Pressurize the arm cuff with the inflation bulb.
  - Pressurize the arm cuff to approximately 30-40 mmHg above the estimated systolic blood pressure to be measured.



- 4. When Pressurization is Completed, the automatic exhaust mechanism will gradually reduce arm cuff pressure, and the "♥ " mark will appear indicating that measurement is in progress.
- 1) Pressure value appears on the left, and exhaust speed on the right side of the display.



\*Remain still during measurement.

2) When a pulse is detected, the pressure value moves to the right side of the display. At this time the " " mark flashes at the same rate as pulse rate, and the buzzer sounds when the pulsation is sufficient.

Pressure

3) When the measurement is completed and buzzer sounds (beep), Systolic pressure is displayed on the left and Diastolic pressure on the right side of the display. 2-3 seconds later, pressure value and pulse appear alternately on the display.

\*When a measurement is made with insufficient pressure the "Err" mark appears. Pressurize to a valve 30-40 higher than that previously used and perform the measurement again.

- Push the air release valve to completely release the air from within the cuff.
  Turn Power OFF
- Press the Power switch to turn power OFF. (See Diagram A) 7. Previous Measurement Display
- When the Memory switch is pressed, the previous measurement value is shown for about 5 seconds.
- 8. Automatic Power OFF Function

If this unit is left on after measurement an Automatic Power-OFF function turns the power OFF after approximately 2 min. 30 seconds. To continue measurement press the power switch turning the unit ON.

	SPECIFICATIONS	
Name and model number	Digital Blood Pressure Meter 7659	
Dišplay system	Digital display system/LCD_6 digits	
Measuring method	Oscillometric method	
Power source	Type AA batteries x 4	
Measuring range	20-280 mmHg (Pressure) 40-200 Pulses/minute (Pulse)	
Accuracy	-3 mmH g or 2% whichever greater (Pressure) -5% (Putise)	
Pressurization	Manual pressurization	
Depressurization	Constant-Air-Release Valve System	
Deflation	Manual air release valve	
Memory	Built-in memory enabling display of the previously measured value and currents measurements.	
Automatic Power OFF	To be automatically cut off after 2 minutes 30 seconds of nonuse to save energy.	
Battery life	Approx. 12 months with 3 min. usage per day	
Operating environment	50" to 140°F, less than 85% RH	
Storage environment	14°. to 122°F, less than 85% RH	
Dimensions	5"(W).x 3"(D) x 1.6"(H)	
Weight	10.5 oz (including 4 batteries)	
	•	



#### MODEL 7659 REPLACEMENT PARTS AND ACCESSORIES

Part#	Description	Price	Quantity	Total
47834-042	Regular Adult Cuff	12.95		;
47834-033	Batterv Cover	200		•
47834-012	Replacement Hose	4.95		
47834-036	Exhaust Valve Assembly	4.95		
47834-044	Replacement Bulb	2.95		
47834-037	Storage Case	4.50	<u> </u>	
99935	Instruction Book	1.00	·····	·
47834-006	Blood Pressure Record Sheet (25/pack)	3.95		
47834-038	T Connector	4.95		
	• • • • • • • • • • •	Order 1	l: \$	·

Above prices include shipping and handling. Please print your name and address below.

Name

Street	Address		
City		State	Zip
		Send to: Sunbeam-Oster Household Produ	icts
		117 Central Industrial Row Purvis, 1 or call I-800-394-2326	Mississippi 39475
	For	Mastercard or VISA: 'Circle one Mastercard	VISA
	Card #	<u>E</u> xp.	Date

Authorization Signature

### LIMITED ON YEAR WARRANTY

This product is warranted for one year from the date of purchase against defects in material and workmanship. If the product fails to operate during this period, return it, prepaid, to Appliance Service Station, 117 Central Industrial Row, Purvis, MS 39475 for repair or replacement without charge at the manufacturers option or call 1-800-597-5978. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Warrantor: Sunbeam-Oster Household Products.

@Sunbeam TM Health at Home 01992 Sunbeam-Oster Household Products Distributed by Sunbeam-Oster Household Products, Schaumburg, IL 60173



MODEL7659 REPLACEMENTPARTS AND ACCESSORIES

Please print your name and address below.

Name

Street Address

City

State

Zip

Include check or money order made payable to Sunbeam-Oster Household Products and mail to:

Sunbeam-Oster Household Products

117 Central Industrial Row Purvis, Missrssippi 39475



#### MODEL 7659 REPLACEMENT PARTS AND ACCESSORIES

Part#	Description	Price	Quantity	Total
47834-042	Regular Adult Cuff	12.95		;
47834-033	Batterv Cover	200		•
47834-012	Replacement Hose	4.95		
47834-036	Exhaust Valve Assembly	4.95		•••••••
47834-044	Replacement Bulb	2.95	·	
47834-037	Storage Case	4.50		
99935	Instruction Book	1.00		
47834-006	Blood Pressure Record	3.95		
1001 1000	Sheet (25/pack)	5.75		
47834-038	T Connector	4.95		
		Order 1	l:s	

Above prices include shipping and handling. Please print your name and address below.

#### Name

	Address			
City			State	Zip
		Send	to: Sunbeam-Oster Household P 117 Central Industrial Ro Duratis Mississippi 20475	
	Fo	r Mastercard	Purvis, Mississippi 39475 or call I-800-394-2326 or VISA: 'Circle one Master	card VISA
	Card #			Exp. Date
		Authorization	Signature	